



Subject: **LOWER FRASER RIVER RECREATIONAL HOOK AND RELEASE SOCKEYE MORTALITY PILOT STUDY 2008: SUMMARY FOR WEEK 3 – AUGUST 29 TO SEPTEMBER 2, 2008**

The study restarted for the third and final period on Friday August 29 with the setup and organization of the Grassy Bar angling site and the net pen configuration.

The following is a brief summary of results and observations from the third study week:

Angler Component

- The study averaged 16 anglers per day. Daily angler counts from Friday to Tuesday were 20, 18, 24, 13 and six (6), respectively. The largest daily catch of sockeye (7) occurred on August 30. Few sockeye were encountered in the final week, coinciding with significant declines of sockeye estimated migrating past Mission by the Pacific Salmon Commission.
- The study captured and held 12 angler-caught sockeye for 24-hour observation. Daily sockeye catches from Friday to Tuesday were zero (0), seven (7), two (2), three (3) and zero (0), respectively. There were no (zero) sockeye mortalities observed during the week. A total of 174 angler-caught sockeye were held for 24-hour observation during the entire study with two (2) observed mortalities (1.1%).
- Results of hooking locations observed on sockeye were as follows:

Hooking Location	% Frequency			Total
	Week 1	Week 2	Week 3	
Maxillary bone	60%	72%	92%	65%
Chin - exterior	13%	13%	0%	12%
Ventral snag	7%	3%	8%	6%
Corner of mouth - Inside	5%	0%	0%	3%
Lower jaw - Inside	4%	0%	0%	3%
Upper jaw - Inside	2%	3%	0%	1%
Floor of mouth	2%	0%	0%	2%
Dorsal snag	2%	3%	0%	1%
Unknown (hook displaced)	2%	0%	0%	1%
Roof of mouth	1%	3%	0%	1%
Head - exterior	1%	0%	0%	<1%
Eye	1%	0%	0%	<1%
Other - (tail)	1%	0%	0%	<1%
Gills	0%	3%	0%	1%
Total	100%	100%	100%	100%
Sample Size	123	39	12	174



- The anglers landed other salmon during this study period, including 24 chinook (23 adults and one (1) jack), five (5) coho and one (1) chum. All the chinook and coho were wild as indicated by intact adipose fins.

Beach Seining

- Beach seining was conducted on Friday August 29 to acquire control group sockeye for the study. A total of 20 sockeye were caught and held in the net pen for the 24-hour holding period. No (zero) mortalities were observed with these control group sockeye. Over the course of the entire study, 103 control group sockeye were caught and held for 24 hour observation. All 103 of the control group sockeye were released alive after the 24-hour holding period (i.e. zero (0) mortalities).
- In addition to sockeye, the beach seine caught and immediately released a total of 124 jack and 17 adult chinook and eight (8) coho. All of the chinook and coho were wild as indicated by intact adipose fins. Two (2) sturgeon (~ 1 m in length) were also caught and immediately released.

Data Collection

- Data collection during the week included a full spectrum of environmental data including air/water temperatures, current flow, and dissolved oxygen levels in the mainstem Fraser River and at the net pen location. Substantive rainfall during the final study week resulted in a continued trend of elevated water levels and associated declines in water temperatures.
- Net pen sampling included the application of numbered Floy tags to all sockeye caught. The tags allow all angling, beach seine and associated catch and release variables to be assessed for individual sockeye.

Analysis and Reporting

- With the field component of the angling study now complete, the project will focus on analyzing and reporting the results of all components of angling, net pen holding and environment on sockeye catch-and-release (CR) mortality. The analysis of angler influence will assess the individual and collective effects of leader length, hook size, hooking location, degree of bleeding, scale loss, playing time, method of landing and air exposure. The report is scheduled to be completed by November 28, 2008.

We would like to thank all the volunteer anglers and angling stakeholder groups for their exceptional support, participation and commitment to ensure the success of this 2008 pilot study.

Sincerely,
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